

## CLAIMS:

1. Centrifuge having at least one centrifugal drum, having a stack of discs (21), characterized in that
  - a) the centrifuge has at least two centrifugal drums (2,3) which can each be rotated about two axes of rotation (A1, A2)
  - b) one of the axes of rotation respectively extending through the center of gravity of the centrifugal drums such that one of the axes of rotation (A1) is in each case situated within the at least one or more centrifugal drum(s) and the other axis of rotation (A2) is preferably situated outside the centrifugal drum(s) (2, 3),
  - c) one of the disc stacks (21) respectively being inserted into the drums.
2. Centrifuge according to Claim 1, characterized in that the two axes of rotation extending through the center of gravity are oriented parallel to one another and, in particular, are aligned with one another.
3. Centrifuge according to Claim 1 or 2, characterized in that the centrifugal drums (2, 3) have a continuous basket shell.
4. Centrifuge according to one of the preceding claims, characterized in that one of the axes of rotation (A1) is in each case situated inside the at least one or more centrifugal drum(s), and the other axis of rotation (A2) is situated outside the centrifugal drum(s) (2,3).
5. Centrifuge according to one of the preceding claims, characterized in that the maximal rotational speed of the centrifugal drums (2, 3) about the first axis of rotation (A1) is higher than the maximal rotational speed about the second axis of rotation (A2).

6. Centrifuge according to one of the preceding claims, characterized in that the two centrifugal drums (2, 3) are arranged opposite one another, and in that the first axes of rotation (A1) of the two centrifugal drums (2, 3) are aligned with one another.

7. Centrifuge according to one of the preceding claims, characterized in that the second axis of rotation (A2) is arranged perpendicular to the first axis of rotation (A1) and crosses the first axis of rotation (A1).

8. Centrifuge according to one of the preceding claims, characterized in that the two centrifugal drums (2, 3) have a double-conical construction, two mutually oppositely oriented conical sections (4, 5) each being constructed at the end area, which is inside relative to the second axis of rotation (A2), and at the end area, which is outside relative to the axis of rotation, of the centrifugal drums (2, 3).

9. Centrifugal drum according to one of the preceding claims, characterized in that the two conical sections (4, 5) of each centrifugal drum (2, 3) are mutually connected by way of central cylindrical sections (6).

10. Centrifuge according to one of the preceding claims, characterized in that, relative to the first axis of rotation (A1), the outer conical sections 5 are each preferably conically constructed at an acute angle, the angle of taper  $\alpha$  with respect to the first axis of rotation (A1) amounting to 60° and less.

11. Centrifuge according to one of the preceding claims, characterized in that the disc stack (21) with conical discs (21) is in each case arranged concentrically with respect to the feeding pipe (10) in both centrifugal drums (2, 3).

12. Centrifuge according to one of the preceding claims, characterized in that the disc stack (21) has rising ducts (22).

13. Centrifuge according to one of the preceding claims, characterized in that, at the outer end of the outer conical sections (5), discharge openings (7) for a solid phase are constructed which are oriented concentrically with respect to the first axis of rotation (A1).

14. Centrifuge according to one of the preceding claims, characterized in that cylindrical attachments (8) are shaped onto the inner conical sections (4) toward the second axis of rotation (A2), which attachments (8) are disposed in the carrier elements (10) by means of bearings (9).

15. Centrifuge according to one of the preceding claims, characterized in that, in each case, one centric feeding pipe (11) for the centrifugal material and discharge ducts (12) extend through the cylindrical attachments (8).

16. Centrifuge according to one of the preceding claims, characterized in that each centrifugal drum (2, 3) has a first driving device (16) for driving the centrifugal drum (2, 3) about the first axis of rotation (A1).

17. Centrifuge according to one of the preceding claims, characterized in that the two centrifugal drums (2, 3) have a common driving device (16) for driving the centrifugal drum (2, 3) about the first axis of rotation (A1).

18. Centrifuge according to one of the preceding claims, characterized in that the two centrifugal drums (2, 3) as well as the two driving devices (16) are arranged on at least one ring (17) which is rotatably disposed.

19. Centrifuge according to one of the preceding claims, characterized in that the ring (17) is horizontally aligned and is rotatably disposed by means of bearings (18) on a base structure (19).

20. Centrifuge according to one of the preceding claims, characterized in that the ring (17) can be rotated on the base structure (19) by means of a second driving device (20).

21. Centrifuge according to one of the preceding claims, characterized in that the two centrifugal drums (2, 3) are connected behind one another with respect to the flow path of the centrifugal material.